Standby or Prime Power Features

- Heavy-duty diesel engine
- PMG Excitation System to provide 300% rated current for a minimum of ten seconds to selectively trip breakers (std on 800 kW and up)
- Aluminum die cast rotor core providing high mechanical integrity and low vibration at operating speed (std on 800 kW and up)
- Solid state CMOS controls feature full adjustability for maximum flexibility
- Prototype tested per NFPA 110
- Heavy-duty construction for use in prime or standby application

Gen Set Ratings

<table>
<thead>
<tr>
<th>Baldor Genset Model</th>
<th>kW Rating Standby</th>
<th>kW Rating Prime</th>
<th>Voltage Hi-Wye</th>
<th>Voltage Low-Wye</th>
<th>Voltage Delta</th>
<th>Number of Leads</th>
<th>Phase</th>
<th>Hz</th>
<th>Power Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDLC275-DA</td>
<td>275</td>
<td>260</td>
<td>480/277</td>
<td>240/139</td>
<td>N/A</td>
<td>12</td>
<td>3</td>
<td>60</td>
<td>0.8</td>
</tr>
<tr>
<td>IDLC275-DA</td>
<td>275</td>
<td>260</td>
<td>440/254</td>
<td>220/127</td>
<td>N/A</td>
<td>12</td>
<td>3</td>
<td>60</td>
<td>0.8</td>
</tr>
<tr>
<td>IDLC275-DA</td>
<td>275</td>
<td>260</td>
<td>416/240</td>
<td>208/120</td>
<td>240/120</td>
<td>12</td>
<td>3</td>
<td>60</td>
<td>0.8</td>
</tr>
<tr>
<td>IDLC275-DB</td>
<td>275</td>
<td>260</td>
<td>380/190</td>
<td>N/A</td>
<td>N/A</td>
<td>12</td>
<td>3</td>
<td>60</td>
<td>0.8</td>
</tr>
<tr>
<td>IDLC275-DH</td>
<td>275</td>
<td>260</td>
<td>600/347</td>
<td>N/A</td>
<td>N/A</td>
<td>12</td>
<td>3</td>
<td>60</td>
<td>0.8</td>
</tr>
<tr>
<td>IDLC275-DXB</td>
<td>240</td>
<td>225</td>
<td>380/220</td>
<td>N/A</td>
<td>N/A</td>
<td>12</td>
<td>3</td>
<td>50</td>
<td>0.8</td>
</tr>
</tbody>
</table>

NOTES:
- For ratings and voltages not listed above refer to the Genset Selector or consult factory
- Standby ratings do not have an overload capability but can be used for the duration of the utility failure per ISO-3046, DIN6271 and BS5514
- Prime (Unlimited Running Time) ratings are continuous per DIN 6271 and ISO-3048 with 10% overload capacity
- Base Load (Continuous) ratings are continuous per DIN 6271, BS5514 and ISO-8528 with no sustained overload capacity
- Consult factory for Base Load ratings
- Altitude derate is 4% for each 1000 feet over 2500 @ 1800 RPM, 5000 @ 1500 RPM
- Temperature derate is 1% for 10°F over 104°F ambient
- Fuel consumption will vary, values are estimates
## Engine Technical Data

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Detroit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine Model</td>
<td>Series 60 (12.7L) - 6063TK35</td>
</tr>
<tr>
<td>Engine Type</td>
<td>4 cycle, 6 cylinders</td>
</tr>
<tr>
<td>Engine Horsepower</td>
<td>490</td>
</tr>
<tr>
<td>Aspiration</td>
<td>Turbocharged</td>
</tr>
<tr>
<td>No. of Cylinders &amp; Configuration</td>
<td>In-line</td>
</tr>
<tr>
<td>Displacement - cu. in. (liters)</td>
<td>778 (12.7)</td>
</tr>
<tr>
<td>Bore and Stroke - in. (mm)</td>
<td>5.12 x 6.30 (130 x 160)</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>15.0:1</td>
</tr>
<tr>
<td>Air Filter Type</td>
<td>Dry</td>
</tr>
<tr>
<td>Governor Type</td>
<td>Electronic</td>
</tr>
<tr>
<td>Governor Make</td>
<td>DDC</td>
</tr>
<tr>
<td>Governor Model</td>
<td>DDEC</td>
</tr>
<tr>
<td>Frequency Regulation, steady state</td>
<td>.25%</td>
</tr>
<tr>
<td>Frequency Regulation, no load to full load</td>
<td>Isochronous</td>
</tr>
<tr>
<td>Battery Voltage</td>
<td>24 VDC</td>
</tr>
<tr>
<td>Water Pump Type</td>
<td>Centrifugal</td>
</tr>
<tr>
<td>Coolant Cap., - radiator cooled - qts (liters)</td>
<td>30 (28)</td>
</tr>
<tr>
<td>Coolant Capacity - engine only - gals (liters)</td>
<td>6 (22.71)</td>
</tr>
<tr>
<td>Oil Pan Capacity - gals (liters)</td>
<td>6.5-8 (25-30)</td>
</tr>
<tr>
<td>Rec’d Oil Type - SF/CC/CD-10°F to 90°F</td>
<td>15W-40</td>
</tr>
</tbody>
</table>

### Engine Operational Values

<table>
<thead>
<tr>
<th></th>
<th>English 50 Hz</th>
<th>Metric 50 Hz</th>
<th>English 60 Hz</th>
<th>Metric 60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum ambient temperature - F° - C°</td>
<td>104/122</td>
<td>40/50</td>
<td>104/122</td>
<td>40/50</td>
</tr>
<tr>
<td>Heat rejected to coolant - Btu/min - kWm</td>
<td>6450</td>
<td>113</td>
<td>7750</td>
<td>136</td>
</tr>
<tr>
<td>Max. power at rated rpm - bhp - kWm</td>
<td>390</td>
<td>291</td>
<td>490</td>
<td>366</td>
</tr>
<tr>
<td>Coolant flow - gpm - l/s at 2 PSI</td>
<td>80</td>
<td>5</td>
<td>96</td>
<td>6.1</td>
</tr>
<tr>
<td>Exhaust temperature - F° - C°</td>
<td>801</td>
<td>427</td>
<td>780</td>
<td>416</td>
</tr>
<tr>
<td>Exhaust flow - cfm - m³/min</td>
<td>2019</td>
<td>953</td>
<td>2562</td>
<td>1209</td>
</tr>
<tr>
<td>Normal oil press. range idle/run - PSI - kgf/cm²</td>
<td>12/50</td>
<td>83/345</td>
<td>12/50</td>
<td>83/345</td>
</tr>
<tr>
<td>Max fuel flow to injection pump - gph - Lph</td>
<td>75</td>
<td>284</td>
<td>66</td>
<td>250</td>
</tr>
</tbody>
</table>

## Controls

**Digital Control Module**

### MEC2 Features
- Large Backlit LCD with alpha-numeric readout
- Microprocessor Based Design
- 16 programmable alarms/shutdowns set points
- 4 programmable inputs
- Alarm horn
- Not in Automatic Alarm
- Digital Three Phase Voltage and Current Monitoring
- Password Protected Front Panel Programming
- 4 Programmable Outputs
- Local Emergency Stop Switch
- Optional NFPA110 Level I

### Engine Protections
- Digital Oil Pressure Gauge
- Digital Water Temperature Gauge
- Digital Battery Voltmeter
- Overspeed Shutdown
- Emergency Stop Shutdown
- Loss of Speed Signal
- Overcrank Shutdown

**Designed To Meet/Exceed the Standards Below:**

- UL 508
- UL 2200
- UL 2200
- NFPA 70
- NFPA 110
- NFPA 110
# Gen Set Technical Data

## Alternator Technical Data

<table>
<thead>
<tr>
<th>Generator Frame</th>
<th>Voltage Regulation NL - FL</th>
<th>+/− 1.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exciter</td>
<td>Brushless</td>
<td>Standard</td>
</tr>
<tr>
<td>Cooling Fan</td>
<td>Cast alloy aluminum</td>
<td>Standard</td>
</tr>
<tr>
<td>Bearing</td>
<td>Single, double shielded</td>
<td>Standard</td>
</tr>
<tr>
<td>Connection Type</td>
<td>Reconnectable</td>
<td>Standard</td>
</tr>
<tr>
<td>Insulation Type</td>
<td>Class H</td>
<td>Overspeed</td>
</tr>
<tr>
<td>Windings</td>
<td>100% copper</td>
<td>Standards</td>
</tr>
<tr>
<td>Pitch</td>
<td>2/3</td>
<td>A(U),B(V),C(W)</td>
</tr>
<tr>
<td>Amortisseur Winding</td>
<td>Full</td>
<td>TIF (1960 Weightings)</td>
</tr>
<tr>
<td>Voltage Regulator</td>
<td>SX440</td>
<td>&lt;50</td>
</tr>
</tbody>
</table>

## Alternator Performance Data

<table>
<thead>
<tr>
<th>Model</th>
<th>Model</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDLC275-DA</td>
<td>IDLC275-DB</td>
<td>IDLC275-DH</td>
</tr>
<tr>
<td>Temperature rise by resistance - °C (Stand-By)</td>
<td>150/40</td>
<td>150/40</td>
</tr>
<tr>
<td>Generator model number</td>
<td>HCI444D</td>
<td>HCI444E</td>
</tr>
<tr>
<td>Generator kw at 130/105/80°C over 40°C ambient (480 Volt, 60Hz)</td>
<td>300/272/236</td>
<td>335/305/268</td>
</tr>
<tr>
<td>SKVA output with 30% voltage dip max. 100% recovery at 60 Hz</td>
<td>730</td>
<td>850</td>
</tr>
<tr>
<td>Maximum skva at 90% sustained voltage dip</td>
<td>Consult Factory</td>
<td>Consult Factory</td>
</tr>
<tr>
<td>Subtransient reactance at voltage listed</td>
<td>13.00%</td>
<td>12.00%</td>
</tr>
<tr>
<td>Line - line harmonic maximum total</td>
<td>5.00%</td>
<td>5.00%</td>
</tr>
</tbody>
</table>

## Installation/Application Data

### English 50 Hz  Metric 50 Hz  English 60 Hz  Metric 60 Hz

#### Ventilation requirements

a. Cooling airflow required - cfm - m³/min (unit mounted radiator) 19923 9404 23908 11285
b. Combustion air required - cfm - m³/min 875 413 1070 505

#### Total ventilation requirements - cfm - m³/min (a. + b.)

20798 9817 24978 11790

Maximum cooling air restriction - in.H₂O - in.hg 0.5 0.037 0.5 0.037

Recommended minimum intake louver size (based on “free area”) 21 2 25 2

#### a. Heat rejected to ambient, engine - Btu/min - kWm

6450 113 7750 136

#### b. Heat rejected to ambient, generator - Btu/min - kWm

783 14 783 14

#### Total heat rejection to ambient - Btu/min (a. + b.)

7233 127 8533 150

#### Exhaust system requirements

Exhaust gas flow - cfm - m³/min 2019 953 2562 1209

Exhaust temperature (dry manifold) - °F - °C 801 427 780 416

Maximum back pressure - in.H₂O - mm H₂O (inclusive of silencer) 2.1 701 3 10.2

Exhaust outlet size - in. - mm 5 127 5 127

Emissions - NOₓ - g/BHP-hr - g/kW-hr 6.56 4.89

Emissions - HC - g/BHP-hr - g/kW-hr 0.07 0.05

Emissions - CO - g/BHP-hr - g/kW-hr 0.39 0.29

Emissions - PM - g/BHP-hr - g/kW-hr 0.36 0.27

#### Fuel system requirements

Fuel consumption - 1/4 load - gph - Lph 5 19 6 23

Fuel consumption - 1/2 load - gph - Lph 9 34 11 43

Fuel consumption - 3/4 load - gph - Lph 13 50 17 63

Fuel consumption - Full load - gph - Lph 17 65 22 84

#### Heat Exchanger Cooling system requirements

Minimum raw water (city water) flow - gpm - lps Consult Factory

Maximum supply water temperature - °F - °C Consult Factory

#### Remote Cooling system requirements

Maximum coolant static head - ft. - m Consult Factory

Ventilation required (based on 25°F temp rise) - cfm - lps Consult Factory
### Accessories and Options

#### Control Panel
- Louver Relay – 10 Amp
- Run Relay – 10 Amp
- Dry Contacts For Alarms
- Remote E-Stop
- Control Panel Heater
- Tachometer
- Remote Annunciator
- Remote Communication
- Panel Lights w/Switch
- Generator Voltage Adjust
- Modem For Remote Communication

#### Engine Exhaust System
- Industrial Silencer
- Residential Silencer
- Critical Silencer
- Exhaust Flex
- Exhaust Extension
- Rain Cap

#### Generator Accessories
- Main Line Circuit Breaker
- Exciter Field Circuit Breaker
- Ground Fault Module w/Breaker Shunt Trip
- Ground Fault Module w/o Breaker Shunt Trip
- Reconnectable Link Bars
- Drip Cover IP22
- Manual Voltage Control
- Space Heater
- RTD’s Stator Windings
- RTD’s Bearing (Rear)
- PMG
- MVC300 Manual Voltage Control

#### Engine Electrical System
- Batteries
- Battery Rack
- Battery Cables
- Battery Charger - Automatic
- Battery Charger - Trickle

#### Engine Fuel System
- Day Tank
- Sub-Base Fuel Tank
- Storage Tank
- Flexible Fuel Lines

#### Miscellaneous
- Weather Proof Enclosure
- Sound Attenuated Enclosure
- Trailer Mounted
- Vibration Isolators
- Coolant Heater
- Oil Heater
- Bypass Oil Filter
- Export Crating

### Dimensions – in (mm)

- Weight – lbs. (Kg)
  - 6546 (2969)
- Cubes (Approximate)
  - 270 ft

*Open unit configuration, accessories not included*